

NEW SPECIES AND NAME CHANGES  
IN NEOTROPICAL GESNERIACEAE

Hans Wiehler\*

*Dalbergaria eburnea* Wiehler, sp. nov.

Plate 1A

*D. asterolomae* Wiehler affinis, a qua differt foliis, calycibus et corollis hirsutis, bracteis calycibusque trichomatibus glanduliferis, calycum lobis late lanceolatis plicatis, et corollarum tubis eburneis.

Epiphytic, perennial herb or subshrub; stems erect, ascending, or spreading, rarely branching, to 1.2 m tall, 1-1.5 cm in diam., green, near the base and older stems tan, hirsute, the internodes 3-8 cm long; leaf pairs very unequal, the petiole of the larger leaf 1-5 mm long, green, hirsute, the lamina of the larger leaf oblanceolate, 20-30 x 7-8 cm, acuminate, crenulate-serrulate to subentire, oblique, shiny dark green above, light green and with a red apex below, but often also with red margins, red blotches, or almost completely red below, both surfaces hirsute, the secondary pairs of veins 14-16, the lamina of the smaller leaf similar, ca. 3-6 x 2-2.5 cm. Inflorescences reduced to axillary cymes of 2-4 flowers, the peduncle absent, the prophylls suborbicular to broadly lanceolate, serrate, 3-4.5 x 2.5-3 cm, greenish yellow, often with a red apex, or a central red blotch, or completely red, glabrescent above (=adaxially), hirsute below, the trichomes capitate-glandular, the subtending bracts similar, ca. 2.5 x 2 cm; the pedicel ca. 1 cm long, light yellow-green, hirsute, with a ring of white and/or green calluses at the base of the receptacle; calyx lobes equal, broadly lanceolate, 2.7-3 x 1.5-2 cm, serrate, light yellow-green, hirsute outside, glabrous inside, the trichomes capitate-glandular; corolla erect in the calyx, tubular, ca. 4.5-5 cm long, ivory-white, the spur and proximal part of the tube nearly glabrous, the midsection and distal part villous-hirsute, the face of the limb furnished with short capitate-glandular trichomes, the lobes equal, ca. 9 x 6 mm, the tube inside puberulous and pilose; stamens 4, included, the filaments adnate for 1 mm to the base of the corolla tube, ca. 2.9 cm long, white, pilose, but distally glabrous, the anthers coherent into a square, each anther 2 x 2 mm, the thecae dehiscing by longitudinal slits, the pollen grains prolate spheroidal; ovary cone-shaped, 6 mm long, light green, sericeous, the style ca. 2.9 cm long, white, puberulous, distally with capitate-glandular trichomes, apically abruptly curved downward, the stigma bi-lobed; nectary reduced to a large, double-connate, dorsal gland, 3 x 5 mm, white, glabrous. Fruit an elongated berry, ca. 2.4 x 1.8 cm, ivory-white, puberulous, surrounded by the enlarged, thickened, spreading calyx lobes, each lobe ca. 3.8 x 2.3 cm; seeds elliptic, ca. 1.2 x 0.5 mm, striate, yellow, with a fleshy funicle ca. 2.5 mm long.

TYPE: ECUADOR: PICHINCHA: old road Quito-Santo Domingo, below Chiriboga, leaves with red apices below, 27 April 1979, *Wiehler & Masterson 79108*, cult. at SEL greenhouses, acc. no. W-2747 (HOLOTYPE: SEL; ISOTYPES: to be distributed).

ETYMOLOGY: From the Latin, *eburneus*, -a, -um, ivory-white, with reference to the color of the corolla; white corollas are rare in *Dalbergaria*.

DISTRIBUTION: Western slopes of the Andes of Ecuador (Cotopaxi, Pichincha, Imbabura, eastern Esmeraldas, Carchi) and Colombia (Nariño, Cauca?, Valle), at altitudes of 300 to 1600 meters.

\* The Marie Selby Botanical Gardens, 800 S. Palm Avenue, Sarasota, Florida 33577, U.S.A.

ADDITIONAL MATERIAL EXAMINED: *ECUADOR*: COTOPAXI: 3 km E of El Palmar, road Quevedo-Latacunga, 800 m alt., 5 April 1980, *Dodson & Gentry* 10226 (ECU, MO, SEL); PICHINCHA: Santo Domingo, 1 Dec. 1952, *Fagerlind & Wibom* 1683 (S); same area, Hacienda Zaracay, 500 m alt., 29 March 1967, *Sparre* 15152 (S); same area, wild forest enclave Colonia Santa Marta No. 2, Feb. 1979, *Dodson s.n.*, SEL greenhouse acc. nos. W-2645, W-2711 (SEL); Río Chiguilpe near junction with Río Baba, 7 km E of "km 7" on highway Santo Domingo-Quevedo, 450 m alt., 12 July 1979, *Dodson, Fallen & Morgan* 7886 (SEL); Toachi, road Aloag-Santo Domingo, at confluence of Ríos Pilatón and Toachi, 850 m alt., 2 Jan. 1967, *Sparre* 17813 (S), previously det. as *D. asteroloma*; same area, km 96-94, 1000-1400 m alt., 21 March 1980, *Dodson & Gentry* 9708 (ECU, MO, RPSC, SEL); same area, Dos Ríos, along road to Chiriboga, Feb. 1980, *Dodson s.n.*, SEL greenhouse acc. no. W-2979 (SEL); same area, 3 km S (=above) Hotel Tinalandia, 26 April 1979, *Wiehler & Masterson* 79102 (SEL); same area, below Chiriboga, 27 April 1979, *Wiehler & Masterson* 79109, 79118 (SEL); ESMERALDAS: S. of Quininde, near Río Blanco, 15 March 1953, *Fagerlind & Wibom* 2565 (S); CARCHI: environs of Maldonado, wet montane forest 1450-1650 m alt., 24 May 1978, *Madison, Plowman, Kennedy & Besse* 4427 (SEL); cloud forest above Maldonado, ca. 2000 m alt., 25 & 26 Aug. 1978, *C. & J. Luer & Hirtz* 3387, 3390 (SEL); Peñas Blancas, 20 km below Maldonado, along Río San Juan, wet montane forest, 900-1000 m alt., 27 May 1978, *Madison, Plowman, Kennedy, & Besse* 4598 (SEL, F); Chical, ca. 25 km below Maldonado, 1200 m alt., May 1978, *Madison et al., s.n.*, SEL greenhouse acc. no. W-2694 (SEL); El Pailón, ca. 45 km below Maldonado, wet montane forest, 800 m alt., *Madison & Besse* 6994 (SEL, QCA, US); COLOMBIA: NARIÑO: Barbacoas, 840-200 m alt., 3-5 Aug. 1948, *Garcia-Barriga* 13146 (US); VALLE: old road, Cali-Buenaventura, valley of Río Digua, dense forest, ca. 675 m alt., 2,4 April 1939, *Killip* 34860 (US); same area, Quebrada of Río Blanco, 350 m alt., 18 Dec. 1942, *Cuatrecasas* 13672 (F, US); same area, below La Elsa, epiphyte in wet montane forest, 30 April 1972, *Wiehler, Dressler & Williams* 7255, 7258, 7272 (SEL, and to be distributed.)

*Dalbergaria eburnea* is closely related to *D. asteroloma* which occurs further south on the western slope of the Andes of Ecuador, from Cotopaxi and Los Ríos to Bolívar, Chimborazo, Cañar, and Guayas. In *D. asteroloma* the leaves are puberulous above, sericeous below, the narrowly lanceolate or elliptic, red, sericeous calyx lobes are appressed to the corolla, without the pleating characteristic of *D. eburnea*, the bracts and calyx lobes are without capitate-glandular trichomes, and the tube of the corolla is yellow.

Funds for the illustration of this species were donated by the Tennessee Gesneriad Society of Nashville, TN.

***Columnea aurantia* Wiehler, sp. nov.**

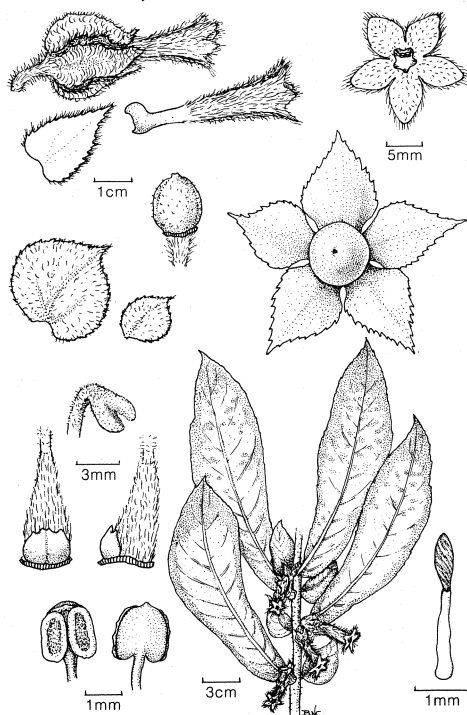
**Plate 1B**

*C. hirsutissimae* Morton primo adspectu similis, sed caulibus crassioribus hirsutis, foliis majoribus hirsutis, et calycum lobis linearibus.

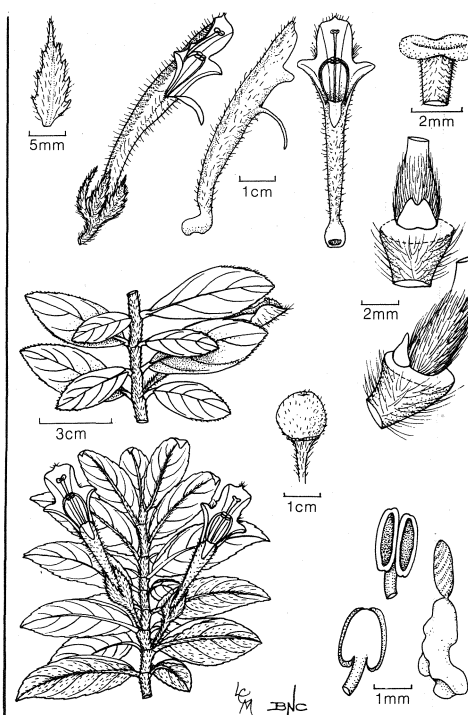
Epiphytic, perennial herb with erect, ascending, or descending stems to 60 cm long, 3-5 mm in diam., grey, sericeous, the internodes 0.5-1.5 cm long; leaf pairs very unequal, the petiole ca. 3-5 mm long, green or flushed with maroon, sericeous, the lamina of the larger leaf of a pair elliptic, 4-5.5 x 1.5-2.8

cm, acute, obscurely serrulate, oblique or rounded at the base, leathery, above bluish green, shiny, glabrescent, below green, flushed or mottled with maroon, sericeous, the secondary pairs of veins 4-5, the lamina of the smaller leaf of a pair similar, 1.5-2.5 x 1-1.3 cm. Inflorescence reduced to a single flower in the axils of the larger leaves of a pair, the peduncle absent, the bracts rudimentary, 2 mm long, the pedicels ca. 1 cm long, yellow-green flushed with rose, sericeous, the receptacle ca. 5 mm long, yellow-green, sericeous, the calyx lobes equal, lanceolate, ca. 1.5 cm long, each lobe with 3-5 teeth on the revolute margins, pink to light maroon, sericeous; corolla almost erect in the calyx, ca. 6.5 cm long, golden orange-red, the back of the tube and the lobes darker orange-red, the prominent spur cream-white flushed with rose, the galea 1.2 x 1.2 cm, the lateral lobes 0.6 cm long, the ventral lobe 1.5 x 0.4 cm, the tube outside pilose, inside glabrous. stamens 4, the filaments adnate for 2 mm to the base of the corolla tube, ca. 5 cm long, yellow, flushed with rose, glabrous, the anthers coherent into a rectangle, each anther 1.5 x 0.8 mm, the connective tissue tinged maroon, the thecae dehiscent by longitudinal slits; ovary ovoid, 4 mm long, light yellow-green, sericeous, the style ca. 5.8 cm long, white, glabrous below, puberulous for the upper 4 cm, the stigma bilobed; nectary reduced to a double-connate, dorsal gland, 2.3 x 2.3 mm, white, glabrous. Fruit a globoid, white, pilose berry, up to 1.4 cm in diam., surrounded by the enlarged magenta-pink calyx lobes; seeds oblong, 1.7 mm long, striate, brown, with a fleshy funicle ca. 3.4 mm long.

TYPE: PANAMA. COCLÉ: cloud forest ca. 8 km N of El Copé, 850-900 m alt., live plant collected by R. L. Dressler, s.n. in May 1977 and sent to SEL; type prepared from live plant in cult., SEL greenhouse acc. no. W-2443, 15 Jan. 1980, Wiehler 8018 (HOLOTYPE: SEL; ISOTYPES: to be distributed).



*Dalbergaria eburnia* Wiehler Plate 1A



*Columnea aurantia* Wiehler Plate 1B

ETYMOLOGY: From the Latin *aurantius*, -a, -um, golden orange-red, in reference to the predominant color of the corolla.

DISTRIBUTION: Known only from the type locality.

ADDITIONAL MATERIAL EXAMINED: PANAMA: COCLÉ: Area of El Copé, Dressler s.n., 1979, live plant sent to SEL, greenhouse acc. no. W-2519, 16 Feb. 1980, *Wiehler 8019* (SEL, to be distributed). This collection differs from the type material in the following features: internodes longer, ca. 1.8-2.1 cm long, leaves longer, 6-8 x 1.7-2.5 cm; there are occasionally 2 flowers per leaf axil.

*Columnnea aurantia* is related to *C. hirsutissima* Morton, also endemic to Panama. This species from the cloud forest "islands" of central Panama shows a remarkable amount of regional variation, each cloud forest with a distinct phenotype. *Columnnea hirsutissima* is also known from the region of El Copé (cv. 'Red Velvet', SEL acc. no. W-2536). In all collections of *C. hirsutissima* the stems are stouter than those of the new species, and hirsute, the leaves larger, abaxially hirsute, and the calyx lobes linear.

Funds for the illustration of this species were donated by Berks County GSI (Gesneriad Society International) Chapter, Reading, Pennsylvania.

#### FROM BUCINELLA TO BUCINELLINA

The genus *Bucynella* Wiehler was established in 1977 for two new species of the *Dalbergaria* alliance native to southwestern Colombia. Two years later appeared in the botanical literature a very useful new tool for taxonomists concerned with the correct names of plant genera, the *Index Nominum Generorum* (Plantarum), edited by Farr, Leussink & Stafleu in Utrecht, Holland. Volume 1 (p. 245, 1979) informs us that the name *Bucynella* was applied in 1936 to a group of fossil algae by the Italian botanist A. Fucini. According to the rules of botanical nomenclature, the name *Bucynella* (= little trumpet) is therefore not available for another genus in the plant kingdom, and the name *Bucynellina* (another diminutive for *bucina*, trumpet) is thus chosen for the live gesneriad genus from Colombia.

**Bucynellina** Wiehler, nom. nov.

*Bucynella* Wiehler, *Selbyana* 2:89. 1977; non *Bucynella* A. Fucini, *Palaeontogr. Ital. ser. 2.1*(App.):82. 1936.

**Bucynellina nariniana** (Wiehler) Wiehler, nom. nov. (type of genus)

*Bucynella nariniana* Wiehler, *Selbyana* 2:91. 1977

**Bucynellina paramicola** (Wiehler) Wiehler, nom. nov.

*Bucynella paramicola* Wiehler, *Selbyana* 2:91. 1977.

#### OTHER NAME CHANGES

**Alloplectus dielsii** (Mansf.) Wiehler, comb. nov.

*Columnna dielsii* Mansf., *Biblioth. Bot.* 116:145. 1937.

*Trichantha dielsii* (Mansf.) Wiehler, *Selbyana* 1:34. 1975.

The type of fruit is an important generic character in the neotropical Gesneriaceae, but herbarium collections usually carry insufficient or no information on the fleshy fruits of gesneriads. A study of all extant collections reveals that the fruit of the above species is a fleshy display capsule, as in the genera *Alloplectus*, *Drymonia* and *Nematanthus*, and not a berry as in the

*Dalbergaria* alliance which includes the genera *Columnnea* and *Trichantha*. Diels' species appears to fit best into *Alloplectus*, with the epiphytic creeper *A. hispidus* Mart. as a close ally. The occurrence of 5 nectary glands in *A. dielsii* (or 4, with the 2 dorsal glands connate) is unusual in *Alloplectus*. The nectary here is typically reduced to a double-connate, dorsal gland, with sometimes an additional ventral gland. *Alloplectus dielsii* is an epiphyte of high cloud forests on the western slopes of the Andes (from 1800 to 3300 m altitude) in Ecuador, in the provinces of Chimborazo, Azuay, Bolivar, Cotopaxi, Tungurahua, Pichincha, Carchi, and in the Departments of Cauca and Valle in Colombia. Since the holotype of this species, *Diels* 657, was lost at B in 1943, and in the absence of isotypes and other collections cited by Mansfeld, the following neotype has been selected: *C. Luer et al.* 2663 (SEL) from the vicinity of Maldonado, Carchi, Ecuador, collected on 21 Feb. 1978.

*Drymonia crenatiloba* (Mansf.) Wiehler, comb. nov.

*Alloplectus crenatilobus* Mansf., Notizblatt Bot. Gart. Berlin 14(121):38. 1940.

A recent examination of live material in the field and in cultivation shows that this terrestrial species with its elongated urn-shaped, yellow corolla has the characteristic saltshaker-like anthers of *Drymonia*, and thus belongs in that genus. It is native to the eastern slopes of the Andes of Ecuador, and its closest relative appears to be *D. urceolata* Wiehler, from the same region.

*Nematanthus crassifolius* (Schott) Wiehler, comb. nov.

*Besleria crassifolia* Schott, Oesterreichische medicinische Jahrbücher 6(2): 93. 1820; reprinted in K. von Schreibers, Nachrichten von den kaiserlichen österreichischen Naturforschern in Brasilien, Anhang 7, p. 93. 1820.

*Nematanthus corticola* Schrader, Göttingische gelehrte Anzeigen 1:718. 1821.

*N. chloronema* Mart., Nov. Gen. sp. pl. 3:47. tab. 220. 1829.

*N. jonema* Mart., ibidem, p. 48. 1829.

*Orobanche brasiliensis* Vell., Florae Flum. 1:240. 1829.

*O. fluminensis* Vell., ibidem, pro parte (sp. mixta).

*Nematanthus fluminensis* (Vell.) Fritsch, Bot. Jahrb. Syst. 37: 488. 1906.

*N. longipes* DC., Prodr. 7: 544. 1839.

*N. guillemii* Brongn., L'Horticulteur Universel 3:327. 1842.

*Columnnea splendens* Paxton, Paxton's Mag. Bot. 10:5. 1843.

*Nematanthus calycinus* Presl, Botanische Bemerkungen 145. 1844.

*N. heterophyllus* Presl, ibidem, non Poeppig, 1840.

*N. pereskiaefolius* Presl, ibidem, p. 143.

*N. radicans* Presl, ibidem, p. 143.

*N. serrulatus* Presl, ibidem, p. 144.

*Nematanthus crassifolius*, the type species of the genus (as *N. corticola*), is probably the most widely distributed species among its congeners. This epiphytic genus is found exclusively in southeastern Brazil, and *N. crassifolius* inhabits much of that area, from the State of Catarina in the south to the States of Sao Paulo, Rio de Janeiro, Minas Gerais, Bahia to Piaui in the north. Its characteristics are: leaves without abaxial red blotches, the long (up to 20 cm) thin and pendent pedicels, and a laterally compressed funnel-shaped corolla with reflexed lobes. Over such a wide range of distribution

there occurs some regional variation in the degree of indumentum, the length of the pedicels, the width and serration of the calyx lobes, and the color of the corolla (from orange-red to pure yellow). The above synonymy is an expression of the local variation within this species.

The following two transfers become necessary for the correct determination of herbarium specimens:

***Sinningia polyantha* (DC.) Wiehler, comb. nov.**

*Gesneria polyantha* DC., Prodr. 7: 528. 1839.

*Corytholoma polyanthum* (DC.) Fritsch, Bot. Jahrb. Syst. 37: 497. 1906.

*Gesneria discolor* Lindley, Edward's Bot. Reg. 27: t. 63. 1841.

***Sinningia tribracteata* (Otto & Dietr.) Wiehler, comb. nov.**

*Gesneria tribracteata* Otto & Dietr., Allgem. Gartenzeitung 2: 194. 1834.

*Reichsteineria tribracteata* (Otto & Dietr.) Klotzsch ex Hanst., in Martius, Flora Bras. 8(1): 356. 1864.

*Corytholoma tribracteatum* (Otto & Dietr.) Fritsch, Bot. Jahrb. Syst. 34: 496. 1906.

***Sinningia speciosa* (Lodd.) Hiern, Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn, 3. Aart. IX-X: 91. 1877-78.**

*Gloxinia speciosa* Lodd., Bot. Cab. 1: 28. 1817.

*Ligeria speciosa* (Lodd.) Decaisne, Rev. Hort. 20: 464. 1848.

*Gloxinia caulescens* Lindley, Bot. Reg. 13: 1127. 1828.

*Orobancha cernua* Vell., Florae Flum. 1: 243. 1829.

*Gloxinia rubra* Paxton, Paxton's Mag. Bot. 7: 271. 1840.

*Gloxinia passinghamii* Paxton, Paxton's Mag. Bot. 12: 167. 1846.

*Sinningia discolor* (Decaisne ex Hanst.) Sprague, Gard. Chron. 6 Aug. 1904: 88.

*Ligeria discolor* Decaisne ex Hanst., in Martius, Flora Bras. 8(1): 388. 1864.

*Sinningia regina* Sprague, Gard. Chron. 6 Aug. 1904: 87-88.

*Sinningia speciosa*, the wild form of the florists' gloxinia, is native to the State of Rio de Janeiro in Brazil. Collections from various localities within this region exhibit a considerable amount of local variation, in the size, texture, and coloration of the leaves, and in the shape, size, and color of the corolla (purple, lavender, white, red, and admixtures). This variation contributed to the horticultural success of the intraspecific hybrids during the last century. Yet as a whole, the various morphological expressions of this species form a natural unit, quite distinct from its congeners. *Sinningia discolor* and *S. regina*, both in cultivation, are within the range of variation of *S. speciosa*. Selby Botanical Gardens has recently started to distribute a third wild collection of *S. speciosa*, with plain green leaves and lavender corollas. To keep the three wild forms properly labelled, it is here suggested to give them cultivar names:

1. *Sinningia speciosa* 'Regina' (formerly *S. regina*; regina, Latin for queen.)
2. *Sinningia speciosa* 'Purple Queen' (formerly *S. discolor*.)
3. *Sinningia speciosa* 'Lavender Queen' (collected in 1975 by Alberto Provença de Faria a few km outside the city of Rio de Janeiro.)

***Smithiantha cinnabarina* (Linden) Kuntze, Rev. Gen. Pl. 2: 978. 1891.**

*Naegelia cinnabarina* Linden, Suppl. Cat. Pl. Exot. Jardin Bruxelles 2: 1857 (figure only); and ex Hanst., Linnaea 29: 510. 1859.

*Smithiantha fulgida* (Ortgies) Voss ex Siebert & Voss, Vilmorin's Blumen-gärtnerei, ed. 3, 1: 791. 1894.

*Naegelia fulgida* Ortgies, Gartenflora 16: 97, pl. 538. 1867.

*Koellikera mexicana* Matuda, Anales Inst. Biol. Nac. Mexico 27: 367. 1956.

The traditional distinction between the two *smithianthas* cited above has been that in *S. cinnabarina* the leaves are either red-purple or green mottled with red-purple and the lobes of the corolla rounded, and that in *S. fulgida* the leaves are plain green and the corolla lobes deltoid or pointed. A study of herbarium material and new live collections make it clear that *S. fulgida* belongs in the synonymy of *S. cinnabarina*. This species is native to the southern States of Mexico, Chiapas, Oaxaca, Tabasco and Veracruz. There is regional and altitudinal variation in the texture and coloration of the leaves, but the corolla has the same shape and cinnabar-red color, with the ventral side white marked with prominent dark red transverse bars or spotting. The other two species of *Smithiantha* are *S. multiflora* (Martens & Galeotti) Fritsch with white corollas and yellow throats (from the States of Oaxaca and Veracruz), and *S. zebrina* (Paxton) Kuntze with a red and yellow corolla, longer than that of *S. cinnabarina*, constricted near the base, and found only in the State of Veracruz. The material presently in cultivation as *S. zebrina* is of hybrid origin from the last century; we need to find again the wild forms from Veracruz.

The following new combinations need to be added to the genus *Trichantha* (cf. Wiehler, Selbyana 1: 33-35. 1975):

*Trichantha acuminata* (Benth.) Wiehler, comb. nov.

*Columnnea acuminata* Benth., Pl. Hartweg. 231. 1846.

*Ortholoma acuminatum* (Benth.) Hanst., Linnaea 26: 209. 1854.

*Trichantha segregata* (B. Morley) Wiehler, comb. nov.

*Columnnea segregata* B. Morley, Ann. Missouri Bot. Gard. 60: 459. 1973.

#### NOTES ON *COLUMNNEA SCANDENS* AND *C. TULAE*

*Columnnea scandens* L. is the type species of the genus *Columnnea*, and is native to the island chain of the Lesser Antilles in the Caribbean, and possibly to adjacent regions in coastal South America. The white berries of this species are eaten by birds and bats, and the seed may thus be easily distributed from island to island. *Columnnea scandens* is, nevertheless, a variable species in the Lesser Antilles, and several varieties have been proposed in the past. Leeuwenberg (Acta Bot. Neerlandica 7:305. 1958) studied herbarium collections of this complex and found intermediates between the named varieties, and that all taxa graded into the "typical" *C. scandens*. The island chain of the Lesser Antilles continues westward as the Greater Antilles, and on the adjacent Virgin Islands, Puerto Rico and Hispaniola exist populations of *Columnnea* known as *C. tulae* Urban. A comparison of live material and herbarium collections shows that these *columnneas* are further extensions of *C. scandens*, and that *C. tulae* belongs in the synonymy of *C. scandens*. The only other *columnneas* from the Caribbean are from Jamaica and Cuba. The eleven species of *Columnnea* on the island of Jamaica and *C. tinctoria* Grisebach from Cuba are not closely related to *C. scandens* and represent a special evolutionary development within the genus.

*Columnnea scandens* L., Sp. Pl. 938. 1753.

*C. tulae* Urban, Symb. Antill. 1: 409. 1899.

*C. tulae* var. *rubra* Urban, ibidem (= nom. illegit., = var. *typica*)

*C. tulae* var. *flava* Urban, ibidem, p. 410.